APPARATUS, SYSTEM AND METHOD FOR RESOURCE DISTRIBUTION

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] The present application is a Continuation of U.S. patent application Ser. No. 15/941,748, filed Mar. 30, 2018, now U.S. Pat. No. 10,470,327, issued Nov. 5, 2019, and entitled Apparatus, System and Method for Resource Distribution (Attorney Docket No.: X14), which is a Continuation of U.S. patent application Ser. No. 13/793,552, filed Mar. 11, 2013, now U.S. Pat. No. 9,936,596, issued Apr. 3, 2018, and entitled Apparatus, System and Method for Resource Distribution (Attorney Docket No.: K33), which is a Non-Provisional Application which claims the benefit of U.S. Provisional Patent Application Ser. No. 61/703,015, filed Sep. 19, 2012 and entitled Apparatus, System and Method for Resource Distribution (Attorney Docket No. J56), each of which is hereby incorporated herein by reference in its entirety.

FIELD OF INVENTION

[0002] The present disclosure relates to resource distribution. More particularly, the present disclosure relates to an apparatus, system and method for resource distribution.

BACKGROUND

[0003] Dependable access to the resources necessary to sustain life and foster prosperity eludes vast portions of humanity. Even in well developed areas of the world, natural disasters have demonstrated such access can be erased in little time at all. In some instances, e.g. military operations, the ability to easily create this access is extremely important.

[0004] According to the Canadian International Development Agency, about 1.2 billion people lack access to safe drinking water. The UN reports that a full 1.6 billion people lack electricity. Again, according to the UN, nearly one billion people lack access to the most basic of health services and about 3 times that number live on less than two dollars per day. Reports attribute tens of millions of deaths each year to entirely preventable water related diseases alone. Sadly, many of these deaths are children. Illness caused by water related disease affects even more and often leads to missed schooling and work. By improving dependable access to life sustaining and prosperity fostering resources the well being of billions of people throughout the world could be improved. Moreover, these people would be enabled to contribute trillions of dollars to the global economy every year.

[0005] Many means of providing such access are well known, however, these means are significantly obstructed in situations where infrastructure is either minimal or has been destroyed. Some solutions to these problems require large numbers of consumables such as filters and chemicals which can be costly and are hard to import into an isolated location. Some require highly skilled operators or constant maintenance by a trained technician. Others only address, for example, the water quality or medical aspect of the problem. Additionally, known solutions do not offer the dependent population a way to foster economic activity. Known solutions are also not easily adaptable to the differing needs of different areas, populations, or situations. Another issue with existing solutions is that they rely on donated funding and are therefore limited. Many solutions provide free services which in effect may actually stifle economic growth because a local entrepreneur who desires to offer such services will not be able to compete with the free nature of the services.

[0006] The ability to provide these necessary resources from a single locus without the need for large quantities of consumables or skilled staff while at the same time providing a hub for economic activity is, accordingly, acutely desirable. Additionally desirable is the ability to easily tailor such a locus to the needs of any given area, population, or scenario. Ideally such a solution should be self sustainable and economically profitable at the local, regional, and global level.

SUMMARY

[0007] In accordance with an embodiment of the present disclosure, a system for the distribution of resources is disclosed. The system includes a housing including at least one water vapor distillation device, at least one power generating device, at least one source water reservoir, at least one product water reservoir, and at least one energy storage device.

[0008] Some embodiments of this aspect of the invention include one or more of the following. Wherein the at least one power generating device is a Stirling generator. Wherein the at least one power generating device is a solar power generating device. Wherein the system for the distribution of resources further comprising a refrigerator. Wherein the refrigerator includes a general section, and a medical refrigeration section, the medical refrigeration section segregated from the rest of the general section. Wherein the system further including at least one oven. Wherein the oven is heated by waste heat from the power generating element. Wherein the housing comprising a shipping container. Wherein the at least one energy storage device is a fuel storage tank. Wherein the at least one energy storage device is a battery bank. Wherein the power generating device supplies power to an electrical grid. Wherein the system includes at least one communications tower. Wherein the system further includes a charging station configured to charge at least one portable power source.

[0009] In accordance with an embodiment of the present disclosure, a system for the distribution of resources is disclosed. The system includes a housing including a first compartment, the first compartment including at least one water vapor distillation device, the water vapor distillation device in fluid communication with a source water reservoir and a product water reservoir, a second compartment, the second compartment including at least one fuel requiring element providing electrical power to the at least one water vapor distillation device, at least one refrigeration apparatus, at least one oven, wherein the at least one oven connected to the fuel requiring element wherein the waste heat from the fuel requiring element is transferred to the at least one oven, and a fuel reservoir in fluid communication with the fuel requiring element.

[0010] Some embodiments of this aspect of the invention include one or more of the following. Wherein the at least one fuel requiring element is a Stirling generator. Wherein the system further includes at least one energy storage device. Wherein the at least one energy storage device is a battery bank. Wherein the system further includes at least one solar panel. Wherein the system for the distribution of resources further includes at least one communications